

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-001690**Date Inspected:** 23-Feb-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1830**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 730**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Chen Xi**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mike Hasler was present to observe the fitup, welding and related activities associated with the fabricating of Caltrans Mock-up, 77M, 89M, 114M and the orthotropic box girders (OBG), for the San Francisco Oakland Bay Self Anchored Suspension Bridge, at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

Item Description	WBS	Dwg No.	Status
1 closed u-rib	na	na	welding in progress

OBG Bay 1--Production Monitoring: Caltrans QA Inspector observed the closed rib welding on Deck Plates DP-018-002.

Submerged arc welding (SAW) is being performed at gantry 2. The deck panel is a carry-over from the day shift which had completed the gas metal arc welding (GMAW) of the root pass weld. Caltrans QA observed that the welding was being monitored by ZPMC Quality Control (QC)/ Certified Welding Inspector (CWI), Mr.Chen Xi. The Saw welding was completed at 2130. The following digital picture illustrates SAW in progress.

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2 plate na na welding in progress

Bay 7: Caltrans QA Inspector observed submerged arc welding (SAW), plate splice weld, side plate identified as SP028-001 weld #49. Caltrans QA observed ZPMC QC/CWI inspector, Mr. Chih Ming Chen monitoring welding activities at the work-station. Mr. Chih Ming Chen stated that welder is identified as #046830 welding in accordance with welding procedure specification WPS-B-T-2221-B-L2-S-1, Revision 0. Caltrans QA Inspector measured current welding parameters at approximately 500 amps, 30.0 volts and 455 millimeters per minute (mm/min) travel speed. The interpass temperature was verified during welding and measured less than 232 Celsius (450 degrees Fahrenheit). The SAW welding consumable is identified as EM12K- JW-3, flux JF-B and diameter 4.8mm. The following digital pictures illustrate welding in progress.



### Summary of Conversations:

As identified within the contents of this report.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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**Inspected By:** Hasler, Mike

Quality Assurance Inspector

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**Reviewed By:** Cuellar,Robert

QA Reviewer